

# Part 2: Why Does Cloud Native Development Matter?



## How Cloud-Native Development Benefits Your Business

In part one of this blog post, we discussed the elements that make up the cloud-native development approach and how DevOps and cloud development work together. You saw how business development and operations teams have an ongoing framework where DevOps processes and cloud development form a natural alliance.

You want to standardize cloud services for unified development, testing, and operations environments. An approach that works in tandem with standardized, repeatable, and automated DevOps of cloud-native development. Doing this dramatically shortens deployment cycles within the CI/CD pipeline, which delivers the following results:

- Faster innovation with cloud-native developers saving time through CI/CD pipelines and self-healing, auto-scaling applications
- Daily rather than monthly release schedules that result in improved services and products for internal business end-users and external customer application users across industries
- Greater scalability and elasticity of applications to meet business and market needs while keeping costs low through as needed resource allocation
- Improved efficiency through DevOps practices that replace manual processes with automation to deliver better app services and products fast and efficiently with low risk and friction
- The ability to react to market changes through the cloud-native development approach enables scalable, agile, portable, and resilient apps across cloud environments
- Freeing dev teams and businesses from large complex apps that require a lot of time and risk for updates due to close dependencies between the app and underlying OS, hardware, storage, and backing services
- Code changes are stored as events, which can be globally available for other teams to use as triggers for features in their domain. This enables automated workflows, limited user group release for transparent testing, and automatic rollback if necessary
- Security configurations and standards can be automatically deployed, tested, monitored, and reported on across the infrastructure, which means faster innovation
- Containers and serverless support security by minimizing the attack surface through easily defined, limited, and replicated accessibility and security rules across the infrastructure

- Low costs to cloud-native infrastructure entry through a pay-as-you-go model

The combined results from cloud-native app development and DevOps practices lead to a unified environment and collaboration between dev, testing, and ops. This gives businesses anywhere access and standardization that delivers applications that fail less often and recover quickly.

With networks, servers, operating systems, and everything else defined as code, developers can focus on delivering apps that can transform the way your business operates, competes, and grows. But this is only the beginning of the business benefits of cloud-native app development.

## **The Business Benefits of Cloud-Native App Development**

Cloud-native app development gives businesses the power of massive scalability, flexibility, and resiliency in a distributed platform that minimizes risk while maximizing innovation. That translates to very real business benefits that affect small businesses to global enterprises across every industry.

### **Retail**

- Automatically scale to meet promotion surges for spikes in online and in-store buyers
- Frequent promotional calendar updates and sales tracking across distributed locations
- Deliver anywhere, anytime access to business-critical systems like enterprise order management, point of sale, store inventory, store fulfillment, and customer intelligence

- Pinpoint goods transfer, material requirements, and the impact of shipping and receive schedules on sales windows via ML-driven applications
- Enable seamless multichannel customer experience via application UI/UX standardization and new services that increase brand awareness and sales while reflecting customer preferences

## **Manufacturing**

It's estimated that 95 percent of the cloud's business value in IT for manufacturers lies in business-related functions like product R&D and IoT-enabled factory floor production systems according to [McKinsey](#). This is where cloud-native app development shines for manufacturing by enabling:

- Unified access and a single version of the truth to real-time machine data that can now provide predictive analysis at scale to improve operations
- Cloud-native apps that feed AI tools to predict machine maintenance on the floor
- Improved production throughput using granular performance management
- Early detection of defects in the manufacturing processes
- Creation of new cloud-native digital services and applications that operate in tandem with legacy applications for pre-cutover testing

## **Banking and Finance**

Managing the flow of data makes the banking and finance industry work. Cloud-native app development meets [financial services application needs](#) by enabling:

- Moving monolithic applications from legacy mainframes to the cloud to enhance services, products, and business flexibility and agility
- Innovative routing for data to be used for internal operations improvement across department silos
- Enhanced security needs by ensuring security rule adherence, fast rollout, and automated updates
- Secure access and auditing by external partners and regulatory bodies via APIs
- Monitoring and analyzing new service rollout to customers along with limited group testing

This continuous intelligence as defined by [Gartner](#) enables banks to integrate real-time analytics into seeing how data is being used across every group from internal end-users, third-party service providers, and regulatory bodies to customers.

## Healthcare

Healthcare AppDev and the cloud that is driven by [targeted business outcomes](#) can personalize care delivery and improve interactions via applications designed to support:

- Telehealth
- Analytics for AI-driven medical device monitoring and proactive treatment and alerts
- Enabling [healthcare technology startups](#) and application providers supporting healthcare organizations (HCO) to scale applications faster to meet demands and easily test new services with defined HCO user groups before rollout to all customers

- Data influx and management of patient records, monitoring systems, quality control checks
- System Data interoperability between HIT systems like EHR, MedRec, CIS, RIS PACs, and others via API for better patient and patient population diagnosis, treatment, and trends across health disciplines, hospitals, and health information exchanges (HIE)
- Prevent data breaches and security attacks
- Ensure compliance with regulations such as HIPAA and GDPR
- Automating workforce attendance tracking
- Simplified hiring and shift tracking in real-time
- Patient Lifecycle tracking with real-time notifications for physician patient checkup, pharmacy billing, etc. to improve interactions, outcomes, wait times, and resource accessibility/allocation

These are a few examples of the benefits that cloud-native app development can foster across a handful of the many industries. But realizing these benefits can be challenging for a small business to the largest enterprise. Having a partner with the right expertise can pave the way for implementation and business outcome success.

## **Overcoming Cloud-Native Development Challenges with Techolution**

Despite cloud-native development's many benefits, 85 percent of enterprises have yet to fully adopt it, according to the Canonical 2021 Kubernetes and Cloud-Native Operations [Report](#). But CFOs and stakeholders are hesitant to move forward because it's challenging to implement and manage it correctly.

The reason:

Introducing DevOps processes and cloud-native architectures mean big changes to business culture, team structures, and roles.

Getting past these self-imposed barriers often requires skilled and experienced support for knowledge transfer, rollout, and management within an organization. Many developer and operations teams have not previously built cloud-native applications, so they will need:

- Training to plug skills gaps and make cloud infrastructure decisions
- Cloud management and DevOps/cloud-native architect experts to plan your cloud-native application
- Support for DevOps practice implementation and cultural changes
- Expertise and experience in cloud-native/DevOps technologies such as Kubernetes, Docker, Jenkins, etc., which your in-house team may not currently have
- Support for migrating and rearchitecting mission-critical legacy monolithic applications to a cloud-native approach
- Consulting support on the use of SaaS solutions as an alternative to app migration
- Support for security and regulatory compliance decisions around app development and cloud management
- Multi-cloud and hybrid cloud management expertise

Managing these challenges determines your business outcome success with cloud-native development.

Having a partner with deep experience in these areas like Techolution can be the fastest and most assured way to achieve your business outcomes through a cloud-native app development framework.

As an expert with a long track record in cloud-native development, the Techolution team brings deep skills in Cloud management, DevOps, AppDev, and a host of cloud

services and cloud providers to support your journey. We can support your business and IT team through turnkey planning and implementation or fractional services.

Our goal is to always help you focus your efforts on achieving specific business outcomes that help you deliver better products and services ROI. The results will include improved customer experiences, more competitive and operational efficiencies, and innovation so you can meet changing market and business demands.